

REMARKS

This application has been carefully reviewed in light of the Office Action dated July 26, 2010. Claims 1 to 13, 16, 17, and 22 to 28 are in the application, with Claims 1, 9, and 17 being independent. Claims 19 to 21 have been cancelled without prejudice. Claims 22 to 28 have been newly added. Reconsideration and further examination are respectfully requested.

Claims 1 to 13, 16, 17, and 19 to 21 were rejected under 35 U.S.C. § 102(b) over U.S. Publication No. 2003/0132392 (Kuroda). Claims 13, 20, and 21 were rejected under 35 U.S.C. § 103(a) over Kuroda. These rejections are respectfully traversed.

According to one feature recited by Claims 1 and 17, the target substance detection element includes a plurality of metal members to give rise to localized surface plasmon resonance, wherein the metal members are arranged on a surface of the base in a localized manner, and wherein each of the metal members has a loop section or a crossing section.

Figures 3 and 4 of the subject application describe example aspects corresponding to the foregoing feature. Of course, it should be noted that this cited portion describes example aspects of the disclosure, and Claims 1 and 17 are not limited as such.

By virtue of the foregoing feature, it is possible to increase the length of contour or the number of corners of the metal members. As a result, the surface plasmon resonance can be intensified to make it possible to improve the detection sensitivity for detecting a target substance. See, for example, page 6, lines 10 to 16; page 15, lines 8 to 11; and Example 3 and Comparative Example 1 of the subject application.

Kuroda is not seen to disclose or suggest at least the foregoing feature, or the attendant benefits provided thereby.

Kuroda describes a chemical sensor utilizing surface plasmon resonance, comprising a substrate having a fine opening array (202, 203, or 204) formed in a metal thin film (201). See Figures 2(a) to 2(c) of Kuroda. However, nowhere is Kuroda seen to disclose a plurality of metal members, wherein the metal members are arranged in a localized manner, and wherein each of the metal members has a loop section or a crossing section.

According to one feature recited by Claim 9, the target substance detection element includes a metal film to give rise to surface plasmon resonance, wherein the metal film is formed on a surface of the base and has a plurality of apertures arranged in a localized manner, and wherein each of the apertures has a loop section or a crossing section.

Figures 20A and 20B describe example aspects corresponding to the foregoing feature recited by Claim 9. Of course, it should be noted that this cited portion describes example aspects of the disclosure, and Claim 9 is not limited as such.

By virtue of the foregoing feature recited by Claim 9, it is possible to increase the length of contour or the number of corners of the apertures. As a result, the surface plasmon resonance can be intensified to make it possible to improve the detection sensitivity for detecting a target substance. See, for example, page 6, lines 17 to 24, and page 26, lines 13 to 16 of the subject application.

Kuroda is also not seen to disclose or suggest the foregoing feature recited by Claim 9, or the attendant benefits provided thereby.

As mentioned above, Kuroda describes a chemical sensor utilizing surface plasmon resonance, comprising a substrate having a fine opening array (202, 203, or 204) formed in a metal thin film (201). See Figures 2(a) to 2(c) of Kuroda. However, nowhere

is Kuroda seen to disclose a metal film having a plurality of apertures, wherein the apertures are arranged in a localized manner, and wherein each of the apertures has a loop section or a crossing section.

The dependent claims are also submitted to be patentable because they set forth additional aspects and are dependent from the independent claims discussed above. Therefore, separate and individual consideration of each dependent claim is respectfully requested.

The application is believed to be in condition for allowance, and a Notice of Allowance is respectfully requested.

No fees are believed due; however, should it be determined that additional fees are required, the Director is hereby authorized to charge such fees to Deposit Account 06-1205.

Applicants' undersigned attorney may be reached in our Costa Mesa, California office by telephone at (714) 540-8700. All correspondence should be directed to our address given below.

Respectfully submitted,

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